Serial No. 10/748,335 Docket No. 4555-121 US

## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in this Application:

## **Listing of Claims**:

- 1. (Cancelled).
- 2. (Currently amended) A method according to claim <u>4\_21</u> wherein the glycosyltransferase is a GT-A or GT-B, NDP-glycosyltransferase.
  - 3. (Cancelled).
- 4. (Currently amended) A method according to claim 3\_21 wherein the substrate comprises UDP, TDP or GDP.
- 5. (Currently amended) A method according to claim 4 <u>21</u> wherein the substrate comprises UDP-GlcNac.
- 6. (Currently amended) A method according to claim 3\_21 wherein the glycosyltransferase is MurG.
  - 7. (Cancelled).
- 8. (Currently amended) A method according to claim 7—21 wherein the labeled substrate comprises a—label is selected from the group consisting of [[(]]a chromophore, a fluorophore, a dye, a radioisotope and an enzyme[[)]].
  - 9. (Original) A method according to claim 8 wherein the label is a fluorophore.
  - 10. (Original) A method according to claim 9 wherein the fluorophore is fluorescein.
- 11. (Currently amended) A method according to claim 10-of identifying a compound that inhibits the ability of a glycosyltransferase to bind a substrate comprising:

combining a glycosyltransferase, a labeled substrate, and a compound, in a reaction vessel, under conditions known to be suitable for the glycosyltransferase to bind the labeled substrate,

measuring an amount of labeled substrate bound to the glycosyltransferase, and
comparing the amount to a standardized amount to identify a relative increase or decrease
in substrate bound glycosyltrnsferase, thereby identifying a compound that modulates the ability
of the glycosyltransferase to bind the substrate,

wherein the glycosyltransferase is a GT-A or GT-B, NDP-glycosyltransferase, the label is fluorescein and,

the labeled substrate is the UDP-GlcNAc (hexose donor) analogue:

- 12. Cancelled.
- 13. Cancelled.
- 14. Cancelled.
- 15. Cancelled.
- 16. Cancelled.
- 17. Cancelled.
- 18. Cancelled.
- 19. Cancelled.
- 20. Cancelled.
- 21. (Previously presented) A method of identifying a compound that inhibits the ability of a nucleotide-sugar glycosyltransferase to bind a substrate comprising:

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performing a donor displacement assay on a target compound wherein at least one substituent on the glycosyl group of the glycosyl donor can be modified to incorporate a label without abolishing binding of the donor to the glycosyltransferase.

- 22. (Previously presented) The method of claim 21 wherein the donor displacement assay is based on displacement of a fluorescently labeled glycosyl donor.
- 23. (Previously presented) The method of claim 21 wherein the donor displacement assay is based on displacement of a ligand from the glycosyl donor binding site.